

ABSTRACT OF THE INVENTION

APPARATUS AND METHOD FOR USING AN ACOUSTIC-JET
FOR CLEANING HARD DISK DRIVE HEADS IN MANUFACTURING

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A method of cleaning using an insonified, pressurized liquid to cleanse and then wash off particulates. The liquid is used to focus and direct the acoustical energy while enabling the trapping of the partials being cleaned and then used to wash off the partials. The acoustical frequency and power is described as optimized to be below the energy level to cause cavitation at the surface of the part being cleaned. The manufacturing process of loading, cleaning and unloading is also described. In another embodiment, a small amount of cavitation is acceptable if the cavitation is below a threshold in which shock waves occur.

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